COMPETENCE THEORY AND THE APPRECIATION OF

NOVEL AND FAMILIAR HUMOR

THESIS

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According to Suls' (1972) incongruity model for the appreciation of jokes, humor with which recipients are familiar should not be perceived as funny because the ending is predictable. Suls (1975) later proposed that familiar humor is appreciated because of the sense of competence derived from adequately remembering the joke. This study examined Suls' theories by having subjects rate jokes on two occasions and supply their punch lines on the second occasion. Statistical significance was determined through the use of the t test for correlated means. Jokes for which punch lines were recalled were perceived as significantly less funny than on the first occasion. The results did not support predictions made from Suls' competence theory but did support those derived from Suls' incongruity model.
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COMPETENCE THEORY AND THE APPRECIATION OF NOVEL AND FAMILIAR HUMOR

Over the years many ideas, notions and theories have been proposed concerning humor. The seemingly universal phenomenon of laughter has inspired attempts to explain why laughter occurs and what it means. Early conceptions of humor were primarily philosophical, rather than experimental, in nature and were put forth by Aristotle, Plato, Cicero, Hobbes, Descartes, Hartley, Darwin and Freud among many others (Keith-Spiegel, 1972). Often these conceptions were mere descriptions of conditions under which humor may occur rather than attempts to explain why it occurs.

In order to gain a historical perspective on early conceptions of humor Keith-Spiegel sorted the early conceptions into eight categories. The first category consisted of views of humor as a biological instinct or as a vestige of archaic adaptive behaviors. A second category, superiority theories, held that humor was found in some defect, deformity or ugliness of others and pleasure was obtained by feeling superior to those others. Incongruity approaches held that humor was the result of a disjointed, ill-suited pairing of ideas or situations or presentations of ideas or situations that are divergent from habitual custom. Often combined with the incongruity approach were surprise theories which
held that surprise, suddeness or unexpectedness were necessary for humor to occur. Some believed that humor was caused by the ambivalence created by the individual experiencing incompatible emotions. Release and relief theories proposed that humor functioned to provide relief from strain or constraint or to release excess tension. Configurational theories held that humor was experienced when elements originally perceived as unrelated suddenly fell into place. These approaches anticipated or reflected the broader theoretical model of Gestalt psychology. Finally the Psychoanalytic theory of humor stated that the ludicrous always represented a saving in the expenditure of psychic energy. It distinguished between the "comic," "wit" and "humor." In the "comic," pleasure was due to economy in the expenditure of thought; in "wit" pleasure derived from economy in the expenditure of inhibition; and in "humor" economy in the expenditure of feeling caused pleasure. The Psychoanalytic approach had much in common with release theories.

Keith-Spiegel admitted that the above categorization, while useful for illustrative purposes, was "an incomplete, somewhat superficial and deceptively clean categorization technique" (p. 13). She also categorized early conceptions of humor according to the issues which arose from them. One category differentiated the intellectual from the emotional aspects of humor. Intellectual theories stressed
elements such as incongruity and the contrast between ideas, i.e., thinking. Other theories which included concepts such as pleasure, moods and tension release were classified as based on emotion. The current study investigated the intellectual aspects of humor as defined by Keith-Spiegel.

Suls (1972) proposed a two-stage model for the appreciation of jokes and cartoons. The model specifically excluded certain forms of humor such as physical forms of slapstick, exaggerated gestures and facial expressions, cartoons without captions, and political caricatures. The forms of humor covered by the model were characterized by Suls as narrative and elicit humor from a sequence of ideas. He considered the other forms of humor nonnarrative since they obtained their humor from a Gestalt configuration derived from a single exposure. Some of the same psychological processes involved in reading and listening are incorporated in this model because this type of joke has to be read or heard in order to be appreciated.

Suls' model is an information-processing analysis of humor and is related to and borrows from the General Problem Solver (GPS) (Newell, Shaw, & Simon, 1958). In the first stage, the perceiver's expectations about the text are disconfirmed by the punch line or in the case of a cartoon, expectations are disconfirmed by the caption. In other words, an incongruity is encountered. In the second stage
the perceiver searches for a cognitive rule which will explain the incongruity. The second stage was termed the resolution.

The first step in processing is the read-in of the joke or cartoon picture. From the initial input, information is extracted and such components as the setting and context of the joke are stored. A narrative schema is formulated by the hearer or reader from this information and is used to predict forthcoming text. This prediction-making process is also used in reading, listening, and other perceptual tasks. Suls and Weisberg (1970) provided evidence of narrative schemata being formulated by readers. Ambiguous sentences preceded by disambiguating contexts were presented to subjects. Interpretations given to the ambiguous sentences by the readers were found to be related to the verbal contexts which preceded them.

Next, the predictions formulated from the narrative schema by the hearer or reader of the joke are compared to the most recent input. If schema and recent input match, the hearer or reader checks to see if it is the end of the joke. If it is the end and there is no incongruity, the process ends with no humor resulting. No humor should occur if the joke has been heard before or if the ending is accurately predicted. If it is not the end of the joke, the schema is retained, the new information is added and the prediction process continues.
If the predictions formulated from the narrative schema do not match recent input and the joke is not ended, a new narrative schema and new predictions are formulated by the recipient of the joke. However, if the predictions do not match and the joke is ended, the result is surprise because expectations have been disconfirmed without the possibility that later text will be read in to reconcile the incongruity. In the case of a cartoon the caption disconfirms some aspect of the picture.

After an incongruity has been experienced, the hearer or reader of the joke enters Stage 2 where problem solving occurs. The problem is: How does the punch line (B) follow from the preceding parts of the joke (A)? The individual attempts to transform the joke's A into B by comparing the two to identify differences and then to establish a subgoal to reduce these differences. The reduction can be achieved by applying operators. According to Suls (1972),

The operators are cognitive rules which, when applied to A, will produce a new expression less different from B than the original A. These rules are semantic, logical or experiential. When the rule (or operator) is found, it is applied. Then the new object and B are compared; if they do not match the process continues until the proper rules are applied to obtain correspondence. When the process reaches correspondence, the individual has found how the punch line of the joke (B) follows from the main part, or stem (A). (p. 88)

If the necessary cognitive rule is retrieved and applied, the humor will be understood. However, if the individual does not have the necessary rule or is unable to
retrieve it, the parts of the joke will remain incongruous and the individual will be puzzled.

Therefore, according to Suls' model, there are two criteria for humor--incongruity and resolution of that incongruity. Experimental evidence has appeared which supports an incongruity approach to humor (Jones & Harris, 1971; McGhee, 1971a, 1971b; Schultz, 1972, 1974; Schultz & Horibe, 1974). These studies involved the appreciation of novel humor rather than familiar humor, that is, humor with which the recipient is already familiar. According to Suls' model, if the prediction formulated from the narrative schema matches the most recent input and the joke is ended, then there will be no surprise and no humor experienced. This should occur if the individual has heard the joke before and remembers it well enough to make an accurate prediction. However, this model, indeed any humor theory based on incongruity, does not offer an explanation for humor which is funny more than once. Only if the joke were not recognized on second exposure would incongruity and therefore humor be experienced. Very little experimental research on the appreciation of familiar humor is found in the literature.

Goldstein (1970) investigated the effects of motive arousal and repetition on humor appreciation. One-half of his subjects were aroused by viewing sexually provocative material; the other half were not aroused. All subjects
then rated nonsense and sexual cartoons which were repeated four times. The results showed a decline in the appreciation of both types of cartoons although the decline was not as steep for sexual cartoons for sexually aroused subjects. Suls (1975) pointed out that each cartoon was repeated in a matter of minutes, an uncommon experience, and suggested examining the appreciation of humor repeated over longer time intervals. He also noted that having each subject rate each cartoon each time they saw it could very likely prove very tedious and therefore could be responsible for the decline in appreciation found in Goldstein's data.

Schick, McGlynn and Woolam (1972) showed subjects familiar and unfamiliar cartoon characters at varying exposure times using the Zajonc (1968) procedure which involved repeatedly exposing subjects to a previously unknown stimulus (e.g., Heingartner & Hall, 1974; Saegert, Swap & Zajonc, 1973; Smith & Dixon, 1971; Zajonc, Shaver, Tavris & Van Kreveld, 1972; Zajonc, Swap, Harrison & Roberts, 1971). Zajonc's hypothesis was that repeated exposure to a previously unknown stimulus enhances or makes more positive a subject's attitude toward that stimulus. Schick et al.'s results indicated that familiar characters were preferred over unfamiliar ones and that familiar characters showed increased appreciation ratings with more exposures. In addition to presenting all of the stimuli in a short period of time
Schick et al. did not repeat particular cartoons but repeated the character depicted in those cartoons. This experiment did not consider reactions to the same stimulus over repetitions.

Suls (1975) conceived of three different approaches to the appreciation of familiar humor. The first was the simple incongruity approach which would predict that familiar humor would not be as funny to the recipient since the punch line (or caption) was no longer unexpected or unanticipated. The second approach was based on Zajonc's (1968) repeated exposure hypothesis, that the mere exposure of a stimulus object enhances an individual's attitude toward it. The repeated exposure approach predicted that perceived funniness would increase with repeated exposure or familiarity.

The third approach was a competence approach which was suggested by Piaget's (1962) reports that once children acquire a cognitive schema or action sequence they tend to repeat it over and over and gain enjoyment by merely reproducing the sequence. The repetition is enjoyed because it allows the child to use cognitive skills successfully. A similar point was made by White (1959) when he noted that children and adults gain satisfaction from interacting with their environment. In this view, correctly remembering a joke's content and its punch line, which is constructed to be unexpected, may be just another example of competence.
The competence approach would predict that a humor stimulus would be funniest when it is completely surprising or when it is completely familiar. It would also predict that humor will decrease in funniness when inaccurately or inadequately recognized.

In order to examine the effects of familiarity on repeated humor, Suls (1975) had 31 subjects rate jokes on three occasions. The first and second ratings were 1 week apart. To allow for significant forgetting of the jokes, the second and third ratings were 3 months apart. Familiarity was experimentally manipulated by having the subjects learn one-half of the jokes they received on the first exposure. Only nonsense humor was used to avoid confounding by motivational factors.

Suls' results did not support repeated exposure theory or incongruity theory since the learned jokes received the same appreciation ratings over all three sessions but the unlearned jokes became less funny after 1 week and rose to their initial level of funniness after 3 months had passed. The results did not support repeated exposure theory since it proposed that jokes would increase in funniness with exposure. The incongruity theory prediction also did not receive support since it predicted that familiar humor should decrease in funniness. However, the findings that the unlearned jokes regained their funniness when they were
completely forgotten and could be treated again as if they were novel supported incongruity theory.

Suls' predictions made from a competence analysis of repeated humor appreciation were supported by the pattern of results at time 2; i.e., that competently recalled familiar humor should remain funny but poorly recognized material should decrease in perceived funniness. The results of this study tended to support the notion that humor is maximally appreciated when it is completely surprising (incongruity theory) or when it is completely familiar (competence theory).

The present study investigated competence theory as it applies to familiar humor. Degree of familiarity with a joke was determined by having subjects supply the punch lines to jokes which they had previously rated for funniness. Three levels of competence were possible: complete recall of the joke as evidenced by supply of the punch line; recognition of the joke as one of those previously read without recall of the punch line; and a failure to recognize the joke as one of those previously read. Predictions made on the basis of competence theory were that recalled jokes would be rated just as funny on the second presentation as they were originally, and that jokes recognized but not recalled would be rated as less funny at the second rating. Alternative predictions based on incongruity theory were that recalled jokes would be rated as less funny while those neither recalled nor recognized would be rated as funny as
they were originally. Also, those jokes neither recalled nor recognized would be rated just as funny as novel jokes.

Method

Subjects

The subjects were 49 volunteers ranging in age from 17 to 74 and in education from high school graduates to individuals holding master's degrees. There were 29 females and 20 males.

Material

Three lists of jokes (A, B, and C) plus a list of punch lines were used. List A and List B consisted of 40 jokes each selected by the author from a book of jokes (Orben, 1977) and randomly assigned to each list. The jokes were chosen for their brevity and easily identified punch lines. Below each joke the following multiple choices appeared.

1. Not funny.
2. Slightly funny.
3. Fairly funny.
4. Very funny.
5. Extremely funny.

The following is an example of items on List A and List B.

1. I won't say he's lazy. Let's just say he's like a blister. Doesn't show up until the work's all done.

1 2 3 4 5
List C consisted of the 80 jokes of List A and List B combined in random order with their punch lines omitted. The same rating scale used on List A and List B appeared below each joke. In addition the following multiple choice appeared.

A. Recognize and remember punch line.
B. Recognize but do not remember punch line.
C. Do not recognize.

Below are two examples of items on List C.

1. I won't say he's lazy. Let's just say he's like a blister. _____________________________
   A. Recognize and remember punch line.
   B. Recognize but do not remember punch line.
   C. Do not recognize.
      1 2 3 4 5

2. I know a billing clerk who went to a psychiatrist. _____________________________
   A. Recognize and remember punch line.
   B. Recognize but do not remember punch line.
   C. Do not recognize.
      1 2 3 4 5

Procedure

Time 1. List A was given to 25 subjects and List B was given to 24 subjects. The lists were distributed alternately with consecutive subjects receiving different lists. The
following instructions were given.

Please write your name and the date in the space provided. This is a list of jokes which I would like you to rate for funniness. After reading each joke rate it according to the following scale:

1 = not funny
2 = slightly funny
3 = fairly funny
4 = very funny
5 = extremely funny

Circle the appropriate number below each joke.

**Time 2.** One week later List C was distributed to the subjects with the following instructions.

Place your name and date at the top of the first page. This is a list of jokes from which the punch lines have been omitted. Some of these jokes were presented to you at the first session and some are new. If you recognize the joke as having been on the first list and you remember the punch line, circle A and supply the punch line in the space provided. If you recognize the joke as having been on the first list but cannot remember the punch line, circle B. And if you do not recognize the joke as having been on the first list, circle C. Jokes for which you supply the punch line should be rated for funniness according to the following scale.

1 = not funny
2 = slightly funny
3 = fairly funny
4 = very funny
5 = extremely funny

After the above step was completed by the subjects the list of punch lines was presented with the following instructions.

These are the punch lines for all of the jokes on your sheets. Please rate the funniness of the jokes for which you could not supply the punch lines; that is, those jokes for which you circled B or C. Do not change the punch lines or ratings for those jokes which you circled A. It is not necessary to fill in the punch lines for these jokes.
Results

Table 1 contains the mean ratings for jokes recalled, recognized but not recalled, and not recognized. A general decline in all mean ratings is present. In order to determine whether this general decline is significant the ratings of novel jokes at Time 1 and Time 2 were compared—that is, the mean ratings of all 40 jokes at Time 1 and the 40 new jokes at Time 2 were compared. Statistical significance was determined through the use of the \( t \) test for correlated means which was calculated by the sums of the differences method. The mean rating for jokes at Time 1 was 2.49 and the mean rating for novel jokes at Time 2 was 2.37. This difference is found not to be significant, \( t(48) = 1.62, p > .05 \).

Table 1

Mean Ratings of Jokes at Time 1 and Time 2

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<tr>
<th>Level of Recognition</th>
<th>Time 1</th>
<th>Time 2</th>
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<tbody>
<tr>
<td>Recalled</td>
<td>2.84</td>
<td>2.58</td>
</tr>
<tr>
<td>Recognized but not recalled</td>
<td>2.42</td>
<td>2.31</td>
</tr>
<tr>
<td>Not recognized</td>
<td>2.37</td>
<td>2.31</td>
</tr>
</tbody>
</table>

Contrary to the prediction made from competence theory the mean rating for jokes for which subjects were able to supply the punchlines decreased significantly, \( t(48) = \)
3.27, \( p < .01 \). However, this result matches the prediction derived from incongruity theory.

Competence theory also predicts that jokes inadequately remembered (i.e., recognized but not recalled) will decline in perceived funniness, but the difference between ratings at Time 1 and Time 2 for this category is not significant, \( t(48) = 1.53, p > .05 \). This outcome is what incongruity theory predicts.

Competence theory and incongruity theory both predict that jokes not recognized will again be treated as novel humor and therefore will be as funny as they were originally. The results are in accord with this prediction as the decline in mean ratings for these jokes is not significant, \( t(48) = .88, p > .05 \).

The final prediction is that jokes not recognized will be rated just as funny as novel jokes. The mean rating for jokes not recognized is 2.31 and for novel jokes is 2.39. This difference is found to be not significant, \( t(48) = 1.02, p > .05 \).

An additional finding is that the jokes which were recalled were rated significantly funnier at Time 1 than jokes which were recognized but not recalled, \( t(48) = 5.75, p < .01 \). Likewise, jokes which were recalled were also rated significantly higher at Time 1 than jokes which were not recognized, \( t(48) = 5.18, p < .01 \).
**Discussion**

The results of this study do not support competence theory. The jokes which were well-remembered declined in funniness. If the subjects experienced pleasure from the feelings of competence derived from remembering the punch lines it is not reflected in the ratings of the jokes. Any frustration caused by not being able to remember the punch lines is not reflected in the ratings of those jokes which were recognized but for which the individuals failed to recall the punch lines.

The fact that people can be observed engaging in anticipatory laughter or smiling when telling or hearing a joke they are familiar with might be due to the social setting in which the joke is told rather than to their cognitive functioning in relation to the jokes. The present study did not allow the subjects to display their competence publicly. Possibly the pleasure exhibited by persons hearing a joke again may be derived from seeing others going through the information-processing necessary to get the joke. Seeing the processing occur would allow the individual to feel competent as well as superior to those hearing it for the first time. As for the person telling the joke, pleasure could be derived from the social reinforcement obtained by making others laugh as well as the competence displayed by adequately remembering and telling the joke.
Incongruity theory is supported by the results of this study. Jokes which were remembered well declined in perceived funniness. Since the ending is no longer unexpected, there is no surprise and the joke is not as funny. The ending is easily predicted from the input received. Although these jokes declined in perceived funniness it should be noted that on the average they were rated slightly to fairly funny on second presentation. Although they declined in perceived funniness, they were not perceived as totally unfunny. With the addition of a social atmosphere these jokes might regain their original level of appreciation.

Incongruity theory is also supported by the finding that jokes recognized but not recalled, as well as those not recognized, did not decline in their level of appreciation. According to incongruity theory as well as Suls' information-processing model, the endings to these jokes were surprising since the ending was not predicted from the input received.

In discussing repeated exposure to humor Suls (1972) noted Kanungo and Dutta's (1966) finding that the intensity of perceived affect of material determines its retention, with better retention associated with greater affect. Therefore, jokes perceived as very funny would be better remembered and perceived as less funny on second presentation because the ending is no longer surprising. Those jokes perceived as less funny would be less likely to be remembered and on subsequent presentation the ending would not be
predicted and would be surprising. These jokes would again be as funny as they were originally.

The results of this study are supportive of Kanungo and Dutta's conception. Based on the data obtained at Time 2, the jokes presented on both occasions were categorized as those for which punch lines were recalled, those which were recognized as having been read before, and those which were not recognized as having been read before. At Time 1, the jokes for which punch lines were recalled were rated as funnier by the subjects than the other two categories. Thus, the greater emotional response (due to their funniness) produced by these jokes made them better remembered, but being better remembered, they lost much of their surprise value and hence their funniness, the second time around.

Future research could investigate the effect of a social setting on the appreciation of familiar humor, especially as it related to competence theory. Also a possibility for research would be to compare the effect on perceived funniness of telling a familiar joke and listening to one.
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